

## CHAPTER I

### I. INTRODUCTION

Lakes are important resources in New Hampshire. They provide enjoyment in fishing, swimming, and boating and they enhance the beauty of the natural environment. Their value for tourism amounts to many millions of dollars each year. The recreation and tourism industry in New Hampshire plays a vital role in many communities and in the state economy. However the increased intensity of use of these water bodies has resulted in the aesthetic degradation of many lakes throughout the state. The same persons that had been attracted to these lakes and ponds because they were clean, clear and tranquil are now complaining of diminished quality as well as overdevelopment.

To accomodate this growth in lake use, lake and watershed management has become increasingly important in the last twenty years. Limnologists are now trying to educate the public on the importance of lake preservation before the resource is destroyed and it becomes necessary to spend thousands of dollars on lake restoration.

The Mendums Pond Study began in October of 1987 as a result of a section 314, Clean Lakes Program grant. The project has afforded limnologists the opportunity to study and to better understand Mendums Pond and it's watershed.

Although the Mendums Pond's watershed spans two municipalities, most of the watershed area is in the Town of Barrington. The watershed area encompasses 1442 hectares and is the drainage basin of several smaller ponds and an extensive system of tributaries.

A priority list developed by the Department of Environmental Services' Biology Bureau has rated Mendums Pond as moderate for both restoration and preservation. The pond is located within 25 miles of Portsmouth and Dover, the states forth and sixth largest cities.

Although, development is still considered sparse, sporadic development occurred on the western shoreline during 1987 through 1991, at Mendums Landing.

The focus of the diagnostic study was to determine the impacts of development on a lake. However, as the economy crashed in the late 1980's, development around the pond became sluggish. Less than 30 percent of the lots were developed during the study period. Another goal of this study was

to determine the phosphorus inputs to the pond and depict the problem areas throughout the pond's watershed. The goal of the feasibility section is to describe some of the methods that can be utilized to preserve and protect the lake from cultural eutrophication.

The implementation of these recommendations will be dependent upon the initiative of state and local government, the citizens of Barrington and the shoreland property owners of Mendums Pond. Cooperation will be a key element in establishing the implementation goals. One of the greatest challenges, that of working together to meet the water quality goals, still lies ahead.